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10/595,659	06/08/2007	Vincent J. Cushing	A8673	4248

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EXAMINER	
KWIECINSKI, RYAN D	

ART UNIT	PAPER NUMBER
3635	

NOTIFICATION DATE	DELIVERY MODE
02/05/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/595,659	CUSHING, VINCENT J.	
	Examiner	Art Unit	
	RYAN D. KWIECINSKI	3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 May 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/3/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, **the controllable valve in combination with the moisture system**, the **permeable barrier layers**, a **valve actuator in combination with the moisture barrier and in combination with each vent from the moisture barrier**, a **differential temperature actuator in combination with the entire moisture barrier system**, a **moisture removal system in combination with a moisture barrier**, and a **vapor pressure control system in combination with a moisture barrier** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New

Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a) because **they fail to show the entire moisture barrier system together as one assembly as described in the specification. The drawings fail to show the moisture barrier, the controllable vents, the temperature actuator, the bistable bivalve, and the permeable barriers all in conjunction with one another.** Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to because the drawings should contain reference numerals, lead lines, and arrows as described in MPEP 37 CFR 1.83(a). The ***drawings should not contain text*** that is used to describe individual parts, but ***they should contain reference characters (preferably numerals)*** that are referred to in the specification of the application.

> **Numbers, letters, and reference characters**.
> (1) Reference characters (numerals are preferred), sheet numbers, and view numbers must be plain and legible, and must not be used in association with brackets or inverted commas, or enclosed within outlines, e.g., encircled. They must be oriented in the same direction as the view so as to avoid having to rotate the sheet. Reference characters should be arranged to follow the profile of the object depicted.
> (2) The English alphabet must be used for letters, except where another alphabet is customarily used, such as the Greek alphabet to indicate angles, wavelengths, and mathematical formulas.
> (3) Numbers, letters, and reference characters must measure at least.32 cm. (1/8 inch) in height. They should not be placed in the drawing so as to interfere with its comprehension. Therefore, they should not cross or mingle with the lines. They should not be placed upon hatched or shaded surfaces. When necessary, such as indicating a surface or cross section, a reference character may be underlined and a blank space may be left in the hatching or shading where the character occurs so that it appears distinct.
> (4) The same part of an invention appearing in more than one view of the drawing must always be designated by the same reference character, and the same reference character must never be used to designate different parts.
> (5) Reference characters not mentioned in the description shall not appear in the drawings. Reference characters mentioned in the description must appear in the drawings.
>
> **Lead lines** .
> Lead lines are those lines between the reference characters and the details referred to. Such lines may be straight or curved and should be as short as possible. They must originate in the immediate proximity of the reference character and extend to the feature indicated. Lead lines must not cross each other. Lead lines are required for each reference character except for those which indicate the surface or cross section on which they are placed. Such a

reference character must be underlined to make it clear that a lead line has not been left out by mistake. Lead lines must be executed in the same way as lines in the drawing. See paragraph (l) of this section.

Arrows .

Arrows may be used at the ends of lines, provided that their meaning is clear, as follows:
(1) On a lead line, a freestanding arrow to indicate the entire section towards which it points;
(2) On a lead line, an arrow touching a line to indicate the surface shown by the line looking along the direction of the arrow; or
(3) To show the direction of movement.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

The abbreviations used throughout the specification should be accompanied by their meaning. The first use of the abbreviation should have the spelled out meaning of the abbreviation followed by the abbreviation in parenthesis (i.e. living quarters (herein referred to as LQ)).

Page 2, paragraph 4 under the "Summary of the Invention", there are no vent valves shown in Figure 1.

Under the "Detailed Description of the Invention", Applicant must describe Figure 1 and not simply disclose "has already been describe above". If Fig. 1 is described in the "background" of the invention, and is intended as prior art, then Figure 1 should be labeled accordingly (i.e. "Prior Art").

Page 3, line 2, "Figure 2depicts" should be –Figure 2 depicts--.

As explained below, the **specification inadequately describes the claimed invention**. The specification fails to disclose a detailed explanation of the formation of the moisture barrier, the assembly, the individual, parts, and how those individual parts work separately and in combination to function as a moisture barrier (See further explanation below).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification fails to adequately describe the moisture barrier as filed. The specification lacks details in the moisture barrier as a whole. The specification fails to disclose where the individual parts are located (i.e. differential temperature actuator, vent valves, controllable vents, etc.). The specification also fails to adequately describe how the specific parts of the moisture barrier (i.e. differential temperature actuator, vent valves, controllable vents, etc.) function as a whole to form the valved moisture barrier of the present claims. The specification discloses the individual parts of the system and also discloses formulas to different temperatures and results of the moisture barrier but fails to disclose how the individual parts are formed into a moisture barrier system and how the moisture barrier works to get those results.

The claims have been examined as best understood.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-7, 9, and 11-14 are rejected *as best understood* under 35 U.S.C. 102(b) as being anticipated by US 4,577,619 to Howe Jr.

Claim 1:

Howe Jr. discloses a valved moisture barrier between first (left of 10, Fig.2) and second (right of Fig.2) environments, said moisture barrier comprising first and second moisture barriers (22 and 18, respectively) separated by an insulating space (24) and separating said insulating space from said first and second environments, respectively, and bypass means (32, 36, 40, 44) for bypassing each of said first and second moisture barriers, at least one of the bypass means comprising at least one controllable vent (Column 5, lines 1-6) actuated to cause said insulating space to be substantially vented to whichever of said first and second environments is cooler (Column 4, lines 50-54).

Claim 2:

Howe Jr. discloses the valved moisture barrier as claimed in claim 1, wherein said controllable vent (36) bypasses said first moisture barrier and said second moisture barrier is permeable to air at a rate less than a rate at which said controllable vent is capable of passing air when it is open (if the vent 36 or 44 is open then the first barrier

is permeable to air at a rate that is greater than the second barrier if the vents 32 and 40 are closed).

Claim 3:

Howe Jr. discloses a valved moisture barrier as claimed in claim 2, wherein said first environment is an interior space (left of 10) of a building and said second environment (right of 10) is outside of said building.

Claim 5:

Howe Jr. discloses a valved moisture barrier between first (left of 10, Fig.2) and second (right of Fig.2) environments, said moisture barrier comprising first and second moisture barriers (22 and 18, respectively) separated by an insulating space (24) and separating said insulating space from said first and second environments, respectively, a first controllable vent (36, 44) communicating said insulating space with said first environment and a second controllable vent (32, 40) communicating said insulating space with said second environment.

Claim 6:

Howe Jr. discloses the valved moisture barrier as claimed in claim 5, further comprising at least one valve actuator (Column 5, lines 1-6; motorized or automatic system, actuator can also be a human operating the vent) for opening each vent when

the temperature in said insulating space is higher than in its respective environment (Column 4, lines 50-54).

Claim 7:

Howe Jr. discloses the valved moisture barrier as claimed in claim 6, further comprising at least one valve actuator (Column 5, lines 1-6; motorized or automatic system, actuator can also be a human operating the vent) for opening said first controllable vent when the temperature in said second environment is higher than in said first environment (Column 4, lines 50-54) and for opening said second controllable vent when the temperature in said first environment is higher than in said second environment (Column 4, lines 50-54).

Claim 9:

Howe Jr. discloses the valved moisture barrier of claim 6, wherein at least one of said vents comprises a bistable leakage bivalve (the dampers 32, 36, 40, 44, if they are open air flows in or out, if they are closed no air flows in or out)

Claim 11:

Howe Jr. discloses a valved moisture barrier between first (left of 10, Fig.2) and second (right of Fig.2) environments, said moisture barrier comprising first and second moisture barriers (22 and 18, respectively) separated by an insulating space (24) and separating said insulating space from said first and second environments, respectively,

said first moisture barrier being breathable to allow passage of air between said insulating space and said first environment (36, 44), and a controllable vent (32, 40) communicating said insulating space with said second environment.

Class 12:

Howe Jr. discloses the valved moisture barrier as claimed in claim 11, further comprising a valve actuator (Column 5, lines 1-6; motorized or automatic system, actuator can also be a human operating the vent) for opening said vent when the temperature in said second environment is lower than the temperature in said first environment (Column 4, lines 50-54).

Claim 13:

Howe Jr. discloses the valved moisture barrier as claimed in claim 11, further comprising a valve actuator (Column 5, lines 1-6; motorized or automatic system, actuator can also be a human operating the vent) for opening said vent when the temperature in said second environment is lower than the temperature in said insulating space (Column 4, lines 50-54)..

Claim 14:

Howe Jr. discloses the valved moisture barrier as claimed in claim 11, wherein said controllable vent is capable of passing air at a higher rate than said breathable first moisture barrier (depending on which vents are open, the vent of the second barrier is

capable of passing air at a higher rate than the first barrier if 36 and 44 are closed).

Claims 1 and 15-16 are rejected *as best understood* under 35 U.S.C. 102(b) as being anticipated by US 5,596,151 to Rossini.

Claim 1:

Rossini discloses a valved moisture barrier between first and second environments (left and right of Fig.2), said moisture barrier comprising first and second moisture barriers (left and right pane of the insulating glass, Fig.2) separated by an insulating space (space between the panes) and separating said insulating space from said first and second environments, respectively, and bypass means (10) for bypassing each of said first and second moisture barriers, at least one of the bypass means comprising at least one controllable vent (15 and 18 control the vent).

The recitation "actuated to cause said insulating space to be substantially vented to whichever of said first and second environments is cooler" is a recitation of the capabilities of the vent of the moisture barrier. The bypassing means of Rossini is capable of performing the intending functional limitation of the claims.

Claim 15:

Rossini discloses a valved moisture barrier between first and second environments (left and right of Fig.2), said moisture barrier comprising first and second

moisture barriers (left and right pane of the insulating glass, Fig.2) separated by an insulating space (space between the panes) and separating said insulating space from said first and second environments, respectively, said first moisture barrier being breathable to permit passage of air between said insulating space (10) and said first environment, and a moisture removal system (Column 3, lines 7-13) coupled to said insulating space.

Claim 16:

Rossini discloses a valved moisture barrier between first and second environments (left and right of Fig.2), said moisture barrier comprising first and second moisture barriers (left and right pane of the insulating glass, Fig.2) separated by an insulating space (space between the panes), and a vapor pressure control system (10 and Column 3, lines 7-13) for controlling vapor pressure in said insulating space.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 4 is rejected *as best understood* under 35 U.S.C. 103(a) as being unpatentable over US 4,577,619 to Howe Jr. in view of US 3,925,945 to White.

Claim 4:

Howe Jr. discloses a valved moisture barrier as claimed in claim 2, but does not specifically disclose wherein said second environment is an interior space of a building and said first environment is outside of said building.

White discloses wherein the window glazing can be flipped and the first and second environments can be the interior or the exterior of the building (Column 2, lines 19-27, Fig.5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed a moisture barrier which can be flipped in order to perform the same moisture resistance whether the first environment was interior or exterior. The vent system must work in a manner that prevents warm/cold are from forming condensation inside of the moisture barrier system.

Claims 8 and 10 are rejected *as best understood* under 35 U.S.C. 103(a) as being unpatentable over US 4,577,619 to Howe Jr. in view of US 4,191,053 to Hart et al.

Claims 8 and 10:

Howe Jr. discloses the moisture barrier as claimed in claims 7 and 9, but does not disclose that the automatic system comprises a differential temperature actuator.

Hart et al. discloses the use of a differential temperature actuator (Fig.1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the automatic system of Howe Jr. that has dampers that were controlled by a differential temperature actuator so that the dampers were opened and closed based on the temperature of the air entering from the first and/or second environments. The temperature actuator will be able to react to the air temperature and leave the inner dampers open or the outer dampers open or both, in order to regulate the temperature of the air space and reduce/eliminate moisture in the air space.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN D. KWIECINSKI whose telephone number is (571)272-5160. The examiner can normally be reached on Monday - Friday from 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basil Katcheves can be reached on (571)272-6846. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RDK
/Ryan D Kwiecinski/
Examiner, Art Unit 3635

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Primary Examiner, Art Unit 3635